METHOD AND SYSTEM FOR DISPLAYING CUSTOM-MADE PRODUCT
SPECIFICATION INFORMATION, SERVER AND TERMINAL FOR
THE SYSTEM, AND METHOD OF SELECTING CUSTOM-MADE
PRODUCT SPECIFICATIONS

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## BACKGROUND OF THE INVENTION

#### 1. Field of the Invention:

The present invention relates to a technology

for a commodity, especially a custom-made product
having specifications selected by a customer (e.g.,
a custom-made personal computer) put on the market
via the Internet. More particularly, the present
invention relates to a method of a system for displaying

custom-made product specifications information on a
customer terminal, and a manufacturer server and a
customer terminal for use in the system. The present
invention also relates to a method of selecting
custom-made product specifications.

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### 2. Description of the Related Art:

Recently, a drastically increased number of commodities are put on the market via the Internet. When purchasing a commodity over the Internet, a purchase applicant (a customer) connects a personal computer (hereinafter also called a PC) to the Internet via a communication line and then displays

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a commodity market site provided by a commodity seller at the display of the PC.

If the commodity is an all-in-one-type PC, all the PCs to be sold are displayed at once in the commodity market site.

If the commodity is a custom-made product, which the purchase applicant selects specifications (functions) in accordance with a customer's favor and available money, candidates of the specifications (e. g., a type of CPU, capacities of the memory and the hard disk, a type of the display device) are displayed in the form of a list of character information.

A specification to be reflected on the appearance of prospective product is a type of the display among the specification to be selected by the purchase applicant. However, the above-described conventional commodity market site only provides character information about the specifications.

Accordingly, the purchase applicant only imagines the appearance and the installation image of the PC having specifications selected by himself/herself based on the combination of the body of PC and the type of the selected display.

The list of the specifications on the display usually is in a set of specification kinds and

specification types. The specification kinds indicate specification names, such as a CPU, a memory, a hard disk and a display. The specification types indicate a plurality of candidates for every specification type. The specification types (candidates for forthcoming selection) of a specification kind "display" are "15-inch LCD", "15-inch CRT", "17-inch CRT" and "No display".

In a conventional displaying method, one specification kind (a candidate preset as a default value or a candidate selected by the purchase applicant) is displayed with respect to each specification kind on the list.

When confirming a plurality of candidates for a specification kind to select a specification type from the candidates, the purchase applicant has to click a selecting button corresponding to the target specification kind to display all the candidates in a pull-down menu.

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### SUMMARY OF THE INVENTION

Since, the inventor recognizes that, in the conventional displaying manner, the specification information is displayed in the form of character information when selling a custom-made product (a custom-made PC) via the Internet, it is difficult

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for the purchase applicant to grasp the appearance image and the installation image of the custom-made product having a specification to be selected reflects on the appearance. The purchase applicant tends to regard appearance and the installation image as important. In such conventional displaying method, the purchase applicant only imagines the appearance image and the installation image of the PC in mind based on the combination of the type of the selected display and the body of PC. Accordingly, it is possible to make a misconception between the appearances of the commodity actually purchased and the appearances of the prospective commodity imagined by the purchase applicant upon the selection.

applicant has to click a selecting button corresponding to the target specification kind to display the candidates in a pull-down menu. Therefore, the inventor recognizes that, since it is difficult for the purchase applicant to grasp all the candidates, an increase amount of time has to be taken to combine the various specification types for every specification kind. Furthermore, it is difficult to select specifications so as to satisfy the balance of functions (for example,

Further, as mentioned above, the purchase

selecting capacities of the memory and the hard disk

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in accordance with the performance of the CPU) of the PC.

With the foregoing problems in view, it is an object of the present invention to provide a method of displaying custom-made product specifications information.

Another object of the invention is to provide a system and a terminal for carrying out the above-mentioned method.

Still another object of the invention is to provide a method of selecting custom-made product specifications.

With these methods, this system and this server, it is possible for a purchase applicant to select an appearance specification with ease, recognizing the actual appearance. It is also possible to surely avoid the misconception between the appearances of an actually purchased commodity and imaged by the purchase candidate upon selecting an appearance specification. It is further possible to select the specifications with ease, grasping all the candidates and considering the balance of the entire custom-made product.

To attain the above first-named object, according to a first generic feature of the present invention, there is provided a method of displaying, on a display section of a customer terminal,

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server.

specifications information about various kinds of specifications of a custom-made product upon receipt of the specifications information from a manufacturer server via a communications network, comprising the steps of: at the manufacturer server, for appearance specifications which are to be reflected on appearance of a prospective custom-made product and have a plurality of candidates for forthcoming selection, previously storing appearance image information of the custom-made product for every candidate; previously storing interior specifications information about interior specifications of the custom-made product; at the customer terminal, displaying, on the display section, a first menu containing the appearance image information about the appearance specifications of all candidates, for selection by a customer; upon receipt from the manufacturer server, selecting at least one candidate of the appearance specifications from the first menu on the display section by the customer; and displaying, on the display section, a second menu containing all kinds of the interior specifications information corresponding to the selected candidate of the appearance specifications, for selection by the customer, upon receipt of from the manufacturer

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With this method, it is possible for a customer to select the appearance specification with ease so that a misconception between the appearances of custom-made product and the customer's prediction is surely avoided because the customer compares the various kinds of appearance image information by concurrently referring and selects a desired appearance specification to grasp and recognize the appearance of the custom-made product.

To attain the above second-named object, according to a second generic feature of the present invention, there is provided a system for displaying specifications information of a custom-made product, composed of a manufacturer server and a customer terminal, and comprising: the manufacturer server having a database which previously stores appearance image information of a prospective custom-made product for appearance specifications which are to be reflected on appearance of the prospective custom-made product and have a plurality of candidates for forthcoming selection, the database also previously storing interior specifications information about interior specifications of the prospective custom-made product for forthcoming selection; and the customer terminal communicably connected to the manufacturer server and having a display section for displaying various kinds of

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information; the manufacturer server reads out a plurality of kinds of the appearance image information, as the candidates of the appearance specifications, from the database and transmits the read-out candidates of the appearance specifications to the customer terminal for displaying on the display section as a first menu so that a customer selects at least one desired candidate; the manufacturer server reads out the interior specifications information from the database which information corresponding to the selected candidate of the appearance specifications, and transmits the read-out interior specifications information, which includes a plurality of candidates, to the customer terminal for displaying on the display section as a second menu so that the customer make selections.

With this system, this manufacturer server and this customer terminal for the system, it is possible for a customer to select the appearance specification with ease so that a misconception between the appearances of custom-made product and the customer's prediction can be avoided because the customer compares the various kinds of appearance image information by concurrently referring and selects a desired appearance specification grasping and recognizing the

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appearance of the custom-made product.

To attain the above third-named object, according to a third generic feature of the present invention, there is provided a method of selecting specifications of a custom-made product, comprising the steps of: displaying, on a display section of the customer terminal, a first menu containing the appearance specifications for every candidate for selection in the first menu by a customer; selecting one candidate from all the candidates of the appearance specifications in the first menu displayed on the display section; displaying, on the display of the customer terminal, a second menu containing all kinds of the interior specifications information corresponding to the selected candidate of the appearance specifications for selection in the second menu by the customer; and selecting desired kinds of the interior specifications from the second menu on the display section by the customer as those of the prospective interior specifications.

With this method, it is possible for a customer to select the appearance specification with ease so that a misconception between the appearances of custom-made product and the customer's prediction can be avoided, because the customer compares the various kinds of appearance image information by concurrently referring and selects a desired

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appearance specification grasping and recognizing the appearance of the custom-made product.

As a preferable feature, during the displaying of the interior specifications information at the customer terminal, the second menu contains the kinds of the interior specifications and all the candidates for each kind.

With this preferable feature, it is possible for the customer to select each specification with ease while grasping all candidates for individual specifications and considering the balance of the entire custom-made product with reference to the first menu and the second menu, which contains selectable candidates for individual functions and specifications.

As another preferable feature, at the customer terminal, delivery information about an estimated delivery term for every candidate is displayed on the display section upon receipt from the manufacturer server.

With this preferable feature, it is possible to improve the service to the customer because the customer can select each specification so as to obtain the custom-made product by a predetermined time limit with reference to the delivery information about an estimated delivery term for every candidate on the display section.

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As still another preferable feature, after the selecting of the appearance specifications and the interior specifications from the first and second menus, the manufacturer server creates a confirmation page containing the appearance image information of the prospective custom-made product, which information corresponds to the result of the selecting, and transmits the confirmation page to the customer terminal for displaying on the display section.

With this preferable feature, it is possible for the customer to find a wrong selection for a specification and to avoid ordering a custom-made product having a wrong selected specification because the customer confirms the result of selection of the specifications as well as the appearance of the custom-made product with reference to the confirmation page.

As an additional preferable feature, the custom-made product is a personal computer, and the appearance specifications are display specifications.

In these methods and this system, when a customer (a purchase applicant) purchases a custom-made product, various kinds of appearance image information are displayed on the display section of the customer terminal. The customer

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selects and decides the appearance specification with reference to the display, and then interior specifications information is displayed on the display section. With such a displaying method, it is possible for the customer to compare the various kinds of appearance image information by concurrently referring and to select a desired appearance specification grasping and recognizing the appearance of the custom-made product. It is also possible for the customer to select the interior specifications after the selection for the appearance specification.

At that time, it is possible for the customer to refer the all selectable specifications and functions by the display of the second menu contains the kinds of the interior specifications and all the candidates for each kind and to recognize the all candidates at once.

It is possible for the customer to select each specification with reference to the display of estimated delivery term for every candidate by displaying delivery information. Namely, when the customer desires to obtain a custom-made product by a predetermined time limit, the customer can select each specification so as to obtain the custom-made product by the time limit with reference to the displayed estimated delivery term.

The customer can confirm the result of selection for each specification as well as the appearance of the custom-made product with reference to the a confirmation page containing the appearance image information of the prospective custom-made product, which information corresponds to the result of the selecting of the appearance specifications and the interior specifications.

Other objects and further features of the present invention will be apparent from the following detailed description when read in conjunction with the accompanying drawings.

# BRIEF DESCRIPTION OF THE DRAWINGS

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- FIG. 1 is a block diagram schematically showing a system for displaying custom-made product specifications of according to a first embodiment of the present invention;
- 20 FIG. 2 is a diagram schematically showing specifications information (both interior specifications information and appearance specifications information) previously stored in a commodity database;
  - FIG. 3 is a diagram schematically showing the appearance specifications information (appearance image information) previously stored in the

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commodity database;

FIG. 4 is a flowchart illustrating a procedure of displaying custom-made product specifications information by a manufacturer server;

FIG. 5 is a flowchart illustrating a purchase procedure by a purchase applicant (customer) employing a customer terminal;

FIG. 6 is a diagram showing a top menu screen;

FIG. 7 is a diagram showing a commodity-type selecting screen;

FIG. 8 is a diagram showing a commodity-image selecting screen;

FIG. 9 is a diagram showing a commodity-specification selecting screen;

FIG. 10 is a flowchart illustrating a purchase procedure by a purchase applicant (customer) employing a customer terminal according to a second embodiment of the present invention;

FIG. 11 is a diagram showing a commodity-specification selecting screen according to the second embodiment; and

FIG. 12 is a diagram showing a specification-confirming screen according to the second embodiment;

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## DESCRIPTION OF THE PREFERRED EMBODIMENTS

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Preferred embodiments of the present invention will now be described with reference to the accompanying drawings.

In the illustrated embodiments, it is assumed that a commodity (a custom-made product) which is put on the market via the Internet is a personal computer (hereinafter also called a PC) as the body of the commodity and accessories (e.g., a printer, a memory, a hard disk apparatus, an auxiliary memory (MO drive, DVD-ROM drive)).

### (1) First Embodiment:

FIG. 1 is a block diagram schematically showing a system for displaying custom-made product specifications of according to a first embodiment. The system is, as shown in FIG. 1, in the form of a computer network includes a manufacturer server 10, customer terminals 20, and the Internet 30.

The manufacturer server 10 and plural customer terminals (hereinafter simply called terminals) 20 are respectively connected to the Internet 30 via communication lines 31 and are communicable with one another.

The manufacturer server 10 provides a commodity-marketing site in the Internet. As described later, the manufacturer server 10 includes an HTML file 13 for the Internet commodity-market site, a main program file 14 and a commodity database

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15. The manufacturer server 10 is also connected to a delivery term managing database 50 via a delivery term managing terminal 40.

The individual customer terminal 20 represents a personal computer of a user (customer, purchase applicant) and is equipped with a non-illustrated controller (e.g., CPU), a display section 21 in the form of a CRT display, an LCD display and etc., and a non-illustrated inputting device exemplified by a keyboard, or a mouse to be operated by the user. A browser 22 is installed in the individual terminal 20 so as to obtain an HTML file from the manufacturer server 10 and then displays the obtained file at the display section 21.

In the detailed description, the manufacturer server 10 includes a controller 11, a communicating device 12, the HTML file 13, the main program file 14, and the commodity database 15. Further, the manufacturer server 10 is connected to the delivery term managing database 50 via the delivery term managing terminal 40.

The controller 11, which consists of a CPU or the like (not shown), controls reading/transferring files and various devices in the manufacturer server 10, retrieves the commodity database 15, and processes various arithmetic operations.

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The communicating device 12 controls transmitting/receiving files. For example, the communicating device 12 transfers data to the controller 11 upon receipt of the data from the terminal 20 via the communication lines 31 and the Internet 30. Meanwhile, the communicating device 12 also transmits a file transferred from the controller 11 to the customer terminals 20.

In the illustrated embodiment, the following files (1), (2) are stored in a predetermined storing device of the manufacturer server 10.

- (1) The HTML file 13, which is a file of plural pages consisting of the Internet commodity-market site, and is described in the HTML (Hyper Text Markup Language).
- (2) The main program file 14, which is executed by the non-illustrated CPU composes the controller 11. The main program file 14 includes the programs for reading the HTML file 13 to transfer to the terminals 20, processing data from the terminals 20, retrieving the commodity database 15, and embedding the retrieval result into the HTML file 13.

The commodity database 15, which stores

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commodities to be marketed in the commodity-market
site.

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It is assumed that the custom-made product is a personal computer, its attribute information is a price, a form (desktop type or notebook type), various items of specifications information, etc. The various items of specifications information are types of CPU, capacities of memory and hard disk, types of display, and whether or not a CD-ROM drive or DVD-ROM drive is installed. The various items of specifications information will be described later in more detail with reference to FIGS. 2 and

The commodity database 15 previously stores appearance image information of the custom-made products (personal computers in the illustrated example) for every candidate, which information indicates appearance specifications (types of a display in the illustrated example) which are to be reflected on appearance of the prospective custom-made product and have a plurality of candidates for forthcoming selection. The commodity database 15 previously stores also interior specifications information about interior specifications (type of a CPU, capacities of a memory and a hard disk in the illustrated example) of the custom-made product.

The specification information of the illustrated embodiment will now be described with

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reference to FIGS. 2 and 3. FIG. 2 is a diagram schematically showing the specification information (both interior specification information and appearance specification

information), and FIG. 3 is a diagram schematically showing the appearance specification information (the appearance image information). Both the interior specification information and the appearance specification information are previously stored in the commodity database 15.

In the commodity database 15 of the manufacturer server 10 of the illustrated embodiment, data with respect to functions (specifications) of each one of the custom-made products is stored so as to retain the data in the separated form of specification kinds and specification types. The specification types are candidates of each specification kind to be selected.

The specification kinds shown in FIG. 2 are "CPU", "memory", "internal hard disk", "display", "drive", "card", "application" and "keyboard". The specification types (possible alternatives) of various specification kinds are as follows: the CPU has one type of "XXXX-650MHz"; the memory has two types of "64MB" and "128MB"; the internal hard disk has two types of "30GB" and "45GB"; the display has four types of "15-inch CRT", "17-inch CRT", "15-inch

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LCD" and "No display"; the drive has four types of "CD-ROM", "DVD-ROM", "CD-R/W" and "Combo"; the card has two types of "No card" and "LAN card"; the application has two types of "Only utilities" and "Full-set"; the keyboard has one type of "KB with a one-touch button". Among the various items of specifications information of FIG. 2, the display is the only appearance specification which is to be reflected on the appearance of the prospective custom-made PC and has plural candidates for forthcoming selection. The other specification kind information is interior specifications of the prospective custom-made PC. In the presence of only one possible candidate, a specification kind cannot be selected from candidates other than the registered one.

The commodity database 15 in the manufacturer server 10, as shown in FIG. 3, stores and retains appearance image information (pictures of the appearances and installation images), which are combinations of the body of a PC and every one of the four display types of "15-inch CRT", "17-inch CRT", "15-inch LCD" and "No display", with respect to all commodities.

The delivery term managing terminal 40 is usually operated when a salesperson in charge of commodity makes arrangements for a commodity and

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is connected to the delivery term managing database 50, which manages delivery term of commodities, parts of the commodities and software. The delivery term managing database 50 is connected to the manufacturer server 10 via the delivery term managing terminal 40. As a result, the controller 11 in the manufacturer server 10 reads individual delivery terms of various specification types (possible alternatives), which are registered in the commodity database 15, from the delivery term managing database 50.

The manufacturer server 10 of the illustrated embodiment reads out various kinds of the appearance image information (FIG. 3) from the commodity database 15 to transmit the read-out information to the terminals 20, and then displays a first menu including the various kinds of the appearance image information on the display section 21. The manufacturer server 10 also reads out specifications information, which includes both interior specifications information and exterior specifications information (FIG. 2), from the commodity database 15 corresponding to the selected candidate of the appearance specification information in the customer terminal 20 to transmit the read-out specifications information to the customer terminals 20, and then displays the

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information on the display section 21. At that time, the manufacturer server 10 reads out information with respect to delivery term of each candidate from the delivery term managing database 50 to transmit the read-out information of delivery term to the customer terminal 20, and then display the delivery terms on the display section 21.

The performance of the system of the illustrated embodiment of FIGS. 1 through 3 will now be described with reference to FIGS. 4 through 9. FIG. 4 is a flowchart illustrating a procedure of displaying custom-made product specifications information by a manufacturer server (Steps S10 through S20); FIG. 5 is a flowchart illustrating a purchase procedure by a purchase applicant (a customer) employing a customer terminal (Steps S30 through S35); FIGS. 6 through 9 are diagrams respectively showing a top menu screen, a commodity-type selecting screen, a commodity-image selecting screen and a commodity-specification selecting screen. The procedure of displaying specification information and the purchase procedure by a purchase applicant (specification selecting procedure) of the illustrated embodiment will be described in parallel using FIGS. 4 and 5.

A purchase applicant (customer, user), when purchasing a custom-made PC, connects the terminal

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20 to the manufacturer server 10 via the communication line 31 and the Internet 30 so as to access to the commodity-market site (Step S30 in FIG. 5).

The manufacturer server 10 transmits a part of the HTML file 13 corresponding to the top menu screen shown in FIG.6 in response to the access from the terminal 20 (YES route of Step S10 in FIG. 4), and displays the top menu screen on the display section 21 in the terminal 20 (Step S11 in FIG. 4).

The purchase applicant looks at the top menu screen on the display section 21 and then clicks to select "SELECT CUSTOM-MADE PC" or "CUSTOM-MADE" thereon (Step S31 in FIG. 5).

When the purchase applicant selects a commodity other than "CUSTOM-MADE" in the terminal 20 (NO route of Step S12 in FIG. 4), the manufacturer server 10 changes the display mode with respect to the selected commodity (an all-in-one commodity or an outlet) (Step S13 in FIG. 4). On the other hand, when the purchase applicant selects "CUSTOM-MADE" in the terminal 20 (YES route of Step S12 in FIG. 4), the manufacturer server 10 transmits a part of HTML file 13 corresponding to a commodity-type selecting screen shown in FIG. 7 to the terminal 20 and then displays the commodity-type selecting screen at the display section 21 in the customer

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terminal 20 (Step S14 in FIG. 4). As a result, the display section 21 displays types of custom-made PC, which are combinations of various specifications (functions, types of specifications) selectable by the purchase applicant.

The commodity-type selecting screen in FIG. 7 displays two candidates, i.e., "DESKTOP TYPE" and "NOTEBOOK TYPE", as types of the custom-made PC with their typical images attached. Other two types, i.e., "AAAA98" and "AAAA2000", are also displayed as candidates for an OS (Operating System) to be installed.

The purchase applicant looks at the commodity-type selecting screen on the display section 21, and then selects one type of PC among the displayed custom-made products and one type of OS, which will be installed in the custom-made PC (Step S32 in FIG. 5). In the illustrated example, it is assumed that a "DESKTOP TYPE" PC and an OS of "AAAA98" are selected in the commodity-type screen of FIG. 7.

The reason that a type of OS, which is an interior specification of a PC, has to be selected upon selecting a commodity-type relates to license between a PC maker and an OS producing corporation (e.g., Microsoft Corporation). Such license forces a PC maker to manage identifications of commodities

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with respect to individual OSs. Under such a restriction, if a type of OS is selected at the same time when other interior specifications are selected (at Step S34 in FIG. 5), an increased amount of time is needed for the processes of retrieving and selecting of various specifications because two identifications, i.e., identifications corresponding to "AAAA98" and "AAAA2000" respectively, have to be retained and managed until a type of OS is decided. As a solution, a type of OS is selected to decide the identification at first so that a subsequent process speed is prevented from lowering. If a purchase applicant can select a commodity free from such restriction, a type of OS is selected as one of the interior specifications with reference to the commodity-specification screen of FIG. 9.

In response to the selection of a type of the commodity and the OS by the terminal 20, the manufacturer server 10 transmits a part of HTML file 13 corresponding to the commodity-image selecting screen of FIG. 8 in accordance with the selected commodity type to the terminal 20 (YES route of Step S15 in FIG. 4) to display the commodity image on the display 21 in the customer terminal 20 (Step S16 in FIG. 4; appearance-specification information displaying step). The HTML file 13 also includes

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a plurality of items of appearance image information stored in the commodity database 15. As a result, the display section 21 on the terminal 20 displays at once the first menu contains various appearance image information about appearances of combinations of the body of the PC and a display, which is one of commodity specifications. In the illustrated embodiment, the fist menu contains four kinds of appearance image information (pictures of an appearance and an installation image), which is combinations of a body of PC and every one of four types displays of "15-inch CRT", "17-inch CRT", "15-inch LCD" and "No display".

The purchase applicant selects a display type among the candidates of the display with reference to the first menu contains four kinds of appearance images in the commodity-image selecting screen on the display section 21 (Step S33 in FIG. 5; appearance specification selecting step). In the illustrated embodiment, it is assumed that the purchase applicant selects "15-inch CRT" for the display type in the commodity image selecting screen of FIG. 8.

Further, the manufacturer server 10 may read out estimated delivery term of each display from the delivery term managing database 50 and may display the estimated delivery term along with each of the corresponding appearance images in the

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commodity-image selecting screen at Step S16 of FIG.

4. With such commodity-image selecting screen, the purchase applicant can select a type of the display considering not only the appearance images but also

the estimated delivery term at Step S33 of FIG.5.

In response to the selection of appearance image, which is a type of the display, by the terminal 20 (YES route of Step S17 in FIG. 4), the manufacturer server 10 transmits a part of the HTML file 13 corresponding to the commodity-specification selecting screen of FIG. 9 including the specifications information (FIG. 2) stored in the commodity database 15 to the terminal 20, and then displays the commodity-specification selecting screen at the display section 21 of the terminal 20 (Step S18 in FIG. 4; interior specification information displaying step).

The commodity-specification selecting screen includes a plurality of specification kinds (functions) and specification types (candidates) as default values. Each specification type corresponds to one of specification kinds.

The manufacturer server 10 reads out the estimated delivery term of individual specification types (candidates for forthcoming selection) from the delivery term managing database 50, and displays the read-out estimated delivery terms in the

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commodity-specification selecting screen. A default value of the display of a specification kind on the display section 21 has been selected at Step S33 as described above.

In the commodity-specification selecting screen of FIG. 9, an estimated delivery term is indicated by a "DELIVERY TERM". Since the delivery terms of individual specifications are displayed as "IN ABOUT n DAYS", the terms of all specification kinds may be not identical. The delivery term of the custom-made PC conforms to the latest day (the largest n) among those of all specification kinds.

The purchase applicant selects a specification type with respect to every specification kind (interior specifications and exterior specifications) with reference to a commodity-specification selecting screen on the display section 21 (Step S34 in FIG. 5; interior specification selecting step). When the applicants confirms candidates with respect to a specification kind to change a forthcoming selection, the purchase applicant clicks a selecting button (a button of  $\nabla$  in FIG. 9), which is designated by each specification kind, to display candidates in the form of a pull-down menu and then selects one candidate with respect to the specification type. As one example, a pull-down menu with respect to

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the memory is shown in FIG. 9.

In the commodity-specification selecting screen of FIG. 9, "XXXX-650MHz" is selected as the CPU; "30GB", as the internal hard disk; "15-inch CRT", as the display; "DVD-ROM", as the drive; "No card", as the card; "Full-set", as the application; and "KB with a one-touch button", as the keyboard. The purchase applicant can change the display type, which has been selected at Step S33, to another display type in the commodity-specification selecting screen of FIG. 9. Alternatively, the appearance image (an installation image) based on the selection at Step S33 may be displayed on the commodity-specification selecting screen of FIG. Further, if all specification types with respect to every specification kind to be displayed exceed the capacity of display on the commodityspecification selecting display at once, part of information is display at once while other part of information is looked through by scrolling the position of the displaying screen.

When the purchase applicant finishes selecting built-in parts (interior specifications), except for the display, according to the above-described manner so that the contents of the commodity are determined, the manufacturer server 10 transmits a part of the HTML file 13 corresponding

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to a purchasing procedure screen (not shown) to the terminal 20 in response to the determination command from the customer terminal 20 (YES route of Step S19 in FIG. 4) to display on the display section 21 in the terminal 20, and changes the mode to a purchase procedure (Step S20 in FIG. 4). Subsequently, the purchase applicant completes the purchase procedure with reference to the non-illustrated purchase procedure screen on the display section 21 (Step S35 in FIG. 5).

In the illustrated embodiment, when purchasing a custom-made PC, the display section 21 in the terminal 20 displays the first menu contains various kinds of the appearances of combinations of a display and a body of the PC. Then the purchase applicant selects and determines an appearance specification with reference to the screen (commodity-image selecting screen), whereupon the display section 21 displays a second menu contains the interior specifications information for the selection for the interior specifications of the body of PC.

As a result, the purchase applicant selects a type of a display, which is to be reflected on the appearance of the prospective commodity, with reference to various kinds of appearances and installation images at the same time for the

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comparison. Partly since the purchase applicant recognizes the actual appearance, and partly since the purchase applicant easily selects an appearance specification of the custom-made product with trust, it is possible to prevent a misconception between the appearances of purchased commodity and the candidate's prediction upon selecting specifications from occurring.

Since the estimated delivery term with respect to individual candidates are displayed in the commodity-specification selecting screen, it is possible for the purchase applicant to decide specifications considering the estimated delivery terms on the display section 21. Namely, when the purchase applicant desires to obtain a custom-made PC by a predetermined time limit, the purchase applicant can select each specification so as to obtain the PC by the time limit with reference to the estimated delivery term. As a result, it is possible to greatly improve service to the customers (purchase applicants).

#### (2) Second Embodiment:

A second embodiment will now be described with reference to FIGS. 10 through 12. FIG. 10 is a flowchart illustrating a purchase procedure by a purchase applicant (a customer) employing a customer terminal (Steps S341, S342); FIGS. 11 and 12 are

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diagrams respectively showing a commodity-specification selecting screen, and a specification-confirming screen. Steps S341 and S342 in FIG. 10 are executed as a substitution for Step S34 in FIG. 5.

In the second embodiment, the manufacturer server 10 is operable to display a commodity-specification selecting screen of FIG. 11 on the display section 21 as a substitution for the commodity-specification selecting screen of FIG. 9. Namely, when displaying specifications information including interior specifications information, the manufacturer server 10 displays the second menu contains interior and exterior specification kinds and all the candidates (i.e., specification types) for each kind at the display section 21.

Further, the manufacturer server 10 produces an order-confirming screen exemplified by FIG. 12 in accordance with the selection by the customer, and transmits the screen to the terminals 20 at display on the display section 21. After the purchase applicant finishes selecting each specification type, the manufacturer server 10 retrieves a commodity having a combination of specifications selected by the purchase applicant, and displays the result of the retrieving at the

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display section 21 in the terminal 20.

The performance of the system of the second embodiment will now be described. At Step S18 in FIG. 4, the manufacturer server 10 transmits a part of the HTML file 13 corresponding to the commodity-specification selecting screen shown in FIG. 11 to the terminal 20, and then displays the commodity-specification selecting screen at the display section 21 in the terminal 20.

As a result, since the display section 21, as shown in FIG. 11, displays the second menu containing the specification kind and all the specification type (FIG. 2) in the form of a list retained in the commodity database 15, the purchase applicant clicks a desired specification type to select among candidates (specification types) displayed on the display section 21 (Step S341 in FIG. 10).

The commodity-specification selecting screen of FIG. 11 displays a status that "XXXX-650MHz" is selected as the CPU; "64MB", as the memory; "30GB", as the internal hard disk; "15-inch CRT", as the display; "DVD-ROM", as the drive; "No card", as the card; "Full-set", as the application; and "KB with a one-touch button", as the keyboard. The selected specification types are indicated by emphasized displays. More specifically, the selected

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specification types are surrounded by solid lines, which are in the form of emphasized display, in FIG. 11.

The manufacturer server 10 also reads out delivery term of each specification type selected in the commodity-specification selecting screen from the delivery term managing database 50, and then displays the read-out delivery terms at the commodity-specification displaying screen. alternative, the manufacturer server 10 may read out delivery terms of not only selected specification types but also all specification types being displayed in the commodity-specification selecting screen of FIG. 11 from the delivery term managing database 50 for display. With this commodity-specification selecting screen, the purchase applicant can recognize and apprehend delivery terms of all types of specification at once time.

In the commodity-specification selecting screen of FIG. 11, an estimated delivery term is indicated by a "DELIVERY TERM". Since the delivery terms of individual specifications are displayed as "IN ABOUT n DAYS", the terms of all specification kinds may be not identical. The delivery term of the custom-made PC conforms to the latest day (the largest n) among those of all specification kinds.

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The purchase applicant can change the display type, which has been selected at Step S33, to another display type in the commodity-specification selecting screen of FIG. 11. Alternatively, the appearance image (an installation image) based on the selection at Step S33 may be displayed on the commodity-specification selecting screen of FIG. Further, if all specification types with respect to every specification kind to be displayed exceed the capacity of display on the commodityspecification selecting display at once, part of information is display at once and other part of information is looked through by scrolling the position of the displaying screen. In another alternative, a type of the OS may be selected on the commodity-specification selecting screen of FIG. 11 as one of the interior specifications.

When the purchase applicant finishes selecting built-in parts (interior specifications), except for the display, and the contents of the commodity are determined, the manufacturer server 10 produces a specification-confirming screen as shown in FIG. 12, and transmits the screen to display at the display section 21 in the terminal 20 prior to the purchase procedure shown at Step S20 in FIG. 4.

The specification-confirming screen displays

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an appearance image (an installation image) of the display selected at Step A33 in Fig. 5 and all interior specifications information selected at Step 341 in FIG. 10. Only the interior specification types selected at Step 341 are picked up for being displayed at the specification-confirming display of FIG. 12. As a result, the purchase applicant can confirm the determined specifications together with the appearance image of the commodity referring to the specification-confirming screen (Step S342 in FIG. 10).

The manufacturer server 10 transmits a part of the HTML file 13 corresponding to the non-illustrated purchasing procedure screen to the terminal 20 in response to the determination command from the customer terminal 20, and then displays the screen at the display section 21 in the terminal 20 to change the mode to a purchase procedure (Step S20 in FIG. 4). Subsequently, the purchase applicant completes the purchase procedure with reference to the purchase procedure screen on the display section 21 (Step S35 in FIG. 5).

As describe above, the second embodiment leads to the same advantageous result as the first embodiment. Further, the selectable specification kinds and types are concurrently displayed on the display section 21 in the terminal 20, as shown in

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FIG. 11, when the purchase applicant selects specifications and functions of the commodity. It is possible for the purchase candidate to select each specification at ease, recognizing the whole appearance of the commodity and considering the balance of function.

Since the display section 21 in the terminal 20, as shown in FIG. 12, displays the specification-confirming screen in accordance with the selections of the individual specifications, the purchase applicant can confirm the selected specifications as well as the appearance of the custom-made product by referring to the specification-confirming screen. As a result, it is possible to provide the purchase applicant of an increased opportunity to find a wrong selection by mistake and to surely prevent a wrong custom-made product from being ordered.

### (3) Modifications:

The present invention should by no means be limited to the first and second embodiments, and various changes or modifications may be suggested without departing the gist of the invention.

For example, the custom-made products of the illustrated embodiments are PCs, and the specification to be reflected on (decide) the appearance of each PC is a display. The present invention should by no means be limited to a PC as

a custom-made product. In an alternative, the present invention may be applied to a custom-made product with a specification that reflects on its appearance. The alternatives lead to the same advantageous result as the illustrated embodiments.